

## REMARKS

Applicant appreciates the examination provided in the Final Office Action dated January 26, 2006 (hereinafter "Final Office Action"). In response to the Final Office action, Applicant has amended Claims 2-6, 8-9, 12, and 16-18. Applicant respectfully requests reconsideration based on the above claim amendments and the following remarks, and submits that the claims as now presented are in condition for allowance.

### **Independent Claim 4 is Patentable Over Thornton in view of Lin**

Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,665,293 to Thornton et al. ("Thornton") in view of U.S. Published Application 2004/0240430 to Lin et al. ("Lin").

Claim 4 has been amended to further distinguish the cited references by emphasizing, among other aspects, that the method is carried out at a phone network interface that receives an analog phone call signal from a phone and selectively converts the analog phone call signal to a digital VoIP phone call signal. Amended Claim 4 now recites:

4. (Currently Amended) A method of routing phone calls in a communication system, the method comprising:  
within a phone network interface, selectively carrying out based on a called number to which a phone call is directed: 1) routing the phone call received as an analog signal from a phone through an analog phone line for communication to a local access phone provider and across a public switched telephone network (PSTN); or 2) converting the analog phone call signal to a digital Voice-Over-Internet-Protocol (VoIP) phone call signal and routing the digital VoIP phone call signal to a broadband network modem device for communication to a local access Internet provider and across a packet switched network.

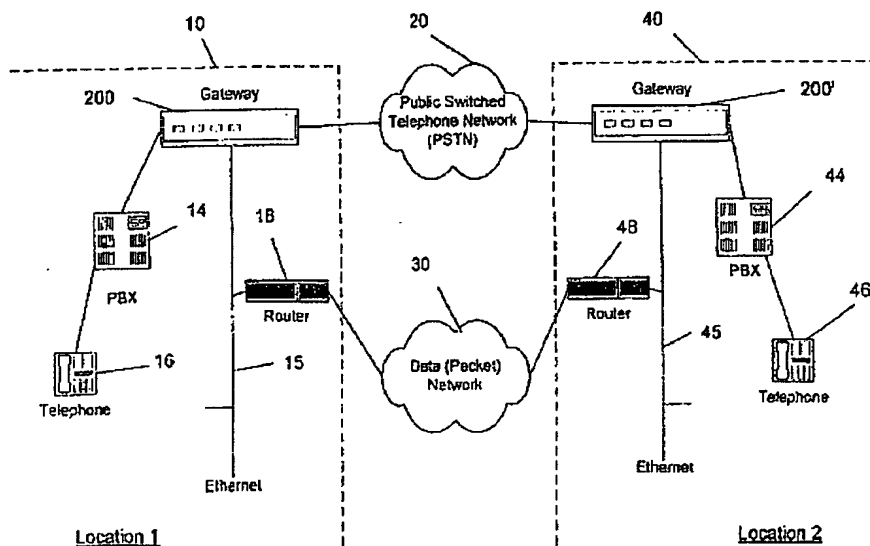
As recited, based on a called phone number, an analog phone call signal received from a phone is selected routed, by a phone network interface, through an analog phone line for communication to a local access phone provider, or the analog phone call signal is converted to a digital VoIP phone call signal and routed to a broadband network modem device for communication to a local access Internet provider and across a packet switched network. An exemplary embodiment of Claim 1 is shown by Figure 1 in which a phone network interface 110 selectively routes an analog phone call signal from phone 100 through an analog phone line for termination by a local access phone provider 122 or converts the

analog phone call signal to a digital VoIP phone call signal which it routes through a broadband network modem device 114 to a local access Internet provider 124 based on a called number to which the phone call is directed. Thus, for example, a 911 emergency phone call from the phone 100 may be routed by the phone network interface 110 through the local access phone provider 122 and PSTN 130 to a "911 emergency response center" 150, while other phone calls may be converted to VoIP phone calls and routed through the broadband access device 114, local access Internet provider 124, and Internet 140, to a VoIP provider 160.

In rejecting Claim 4, the Final Office Action cites to Thornton as teaching "selectively routing a phone call to a PSTN ... or over a data network ... based on the called number." (Final Office Action, Page 2). The Final Office Action concedes that Thornton does not teach routing a phone call to a broadband network modem device, but cites Lin for its general description of a cable modem and DSL modem. Applicant submits that Thornton and Lin do not teach many recitations of amended Claim 4.

Thornton shows in FIG. 1, below, and describes that telephone 16 is connected to a local access phone provider that includes private branch exchanges (PBX) 14 and 44, PSTN 20, a data (packet) network 30, and gateways 200 and 200'.

FIG. 1 of Thornton



The PBX 14 performs incoming call termination (terminating an analog incoming call and generating a digital outgoing call) from telephone 16 and outgoing line selection through the gateway 200 to a central office for tens, hundreds or thousands of telephones (one which is shown as 16). (Thornton, Col. 10, lines 5-30). The gateway 200 is "situated between PBX 14 and the PSTN". (Thornton, Col. 10, lines 52-58). Accordingly, as shown in FIG. 1, the gateway 200 interconnects the PBX 14 network with the PSTN 20 and data network 30. This is consistent with the definition provided by Microsoft Press Computer Dictionary, Third Edition, for the phrase "gateway" as "a device that connects networks using different communications protocols so that information can be passed from one to the other." The gateway 200 selectively routes calls over the data network 30 to provide effective cost savings to the calling parties and/or their organizations. (Thornton, Col. 6, lines 63-67).

The Final Office Action contends that the gateway 200 carries out a selective routing of phone calls. However, because the gateway 200 receives the output of the PBX 14, it is within a local access phone provider. Moreover, Thornton describes that the PBX 14 terminates the call from the phone 16 and generates therefrom a digital signal that is communicated to the gateway 200 and, consequently, the gateway 200 routes a digitized phone call from the PBX 14 to the PSTN 20. More particularly, Thornton describes the PBX 14 as follows:

PBX 14 would select an outgoing telephone line to a central office switch (for a relatively large PBX, this amounts to selecting an available time slot in an outgoing, e.g., T1 trunk).  
(Thornton, Col. 10, lines 28-31, emphasis added).

Accordingly, the PBX 14 converts the analog phone signal into a digital signal that is communicated via a slot within a digital time multiplexed protocol for a T1 trunk. Although the PBX 14 converts an analog phone signal into a digital signal, it does not selectively choose between carrying out that conversion and not carrying out that conversion based on the called telephone number. The gateway 200 selectively routes a digital phone call signal, not an analog phone call signal, based on the called number. However, as explained above, the gateway 200 is within a local access phone provider, not within a phone network interface that interfaces to a phone. Consequently, the gateway 200 does not selectively route an

analog phone call signal through an analog phone line for communication to a local access phone provider.

Thornton describes that the gateway 200 selectively routes a phone call through the PSTN 20 or as a VoIP call through the data network 30. However, because the gateway 200 receives a digital phone call signal from the PBX 14, as explained above, the gateway 200 does not selectively convert an analog phone call signal to a digital VoIP phone call signal and route that signal to a broadband network modem device. Moreover, as conceded by the Final Office Action, Thornton does not disclose a broadband network modem device.

Thornton describes the data network 30 as "a conventional private IP data (packet) network 30 that inter-connects, via routers 18 and 48, two illustrative Ethernet-based local area networks (LANs) 15 and 45 ... [so that devices situated at two locations 1 and 2] for the same customers [are interconnected] through these LANs". (Thornton, Col. 9, lines 54 - Col. 10, line 4). Accordingly, the data network 30 is a private network, not the Internet. As explained above, the gateway 200 is part of a local access phone provider, not part of a phone network interface that can communication through a broadband network modem device with a local access Internet provider. Consequently, the gateway 200 does not selectively route a digital VoIP phone call signal through a broadband network modem device for communication to a local access Internet provider.

The Office Action cites Lin only for its general description of a cable modem and a DSL modem. In particular, the Office Action contends that "it would have been obvious ... that it is necessary to use any of a traditional modem such as: a DSL modem or a broadband network modem to connect a telephone call to the data network or Internet ..., [t]his is the only way a user can communicate to the Internet." (Office Action, Pages 4).

However, because Thornton teaches that the gateway 200 is connected between the PBX 14 and the private data network 14 in a local access phone provider, Thornton teaches away from the recitation of Claim 4 where the broadband network modem device selectively routes the VoIP phone to either a local access phone provider or to a local access Internet provider. Accordingly, if Thornton is combined with Lin, the combined teachings would place the PBX 14 and gateway 200 between the telephone 16 and private data network 30. Applicants submit that the Final Office Action has not provided the required motivation from

Thornton and Lin themselves as to why a person who is skilled in the art would modify Thornton so that the gateway 200, in some unknown fashion, may be moved out of the local access telephone provider and positioned between the telephone 14 and PBX 14 so that it could then selectively route an analog phone call signal via an analog phone line to a local access telephone provider, or convert the analog phone call signal into a digital VoIP phone call signal and route that digital signal through the cable modem or DSL modem, disclosed by Lin, to a local access Internet provider.

Because many recitations of Claim 4 are not disclosed by Thornton and/or Lin, Applicants submit that Claim 4 is patentable over Thornton in view of Lin. For at least these reasons, Applicant submits that amended Claim 4 is patentable over Thornton in view of Lin.

The dependent Claims 2-3 and 5-12 are patentable per the patentability of independent Claim 4 from which they depend.

**Independent Claim 16 is Patentable Over Thornton in view of Vortman and Lin**

Claim 16 stands rejected under 35 U.S.C. §103(a) as unpatentable over Thornton in view of U.S. Published Application 2003/0002479 to Vortman et al. ("Vortman") in view of Lin.

Claim 16 has been amended to include the recitations of Claim 19, now canceled, and thereby emphasize further patentable distinctions over the cited references. Amended Claim 16 now recites:

16. (Currently Amended) A phone adapter comprising:
  - a phone interface that is configured to be communicatively connected to a phone via an analog phone line;
  - a PSTN interface that is configured to be communicatively connected to a public switched telephone network (PSTN) via an analog phone line;
  - an Internet interface that is configured to be communicatively connected to a broadband network interface device that can be communicatively connected to the Internet; and
  - a controller that is configured to selectively: 1) route an analog phone call signal that is received through the phone interface from a phone through the PSTN interface and an analog phone line to a local access phone provider or 2) convert the analog phone call signal to a digital Voice-Over-Internet-Protocol (VoIP) phone call signal and route the digital VoIP phone call signal through the Internet interface to the broadband network interface device to a local access Internet provider for

communication across a packet switched network based on a called number to which the phone call is directed.

Although Vortman has been cited in the Final Office Action as a basis for rejecting Claim 16, Applicant notes that the Final Office Action contends that Thornton and Lin teach each of the recitations of Claim 16. (See Final Office Action, Pages 11-12). The Final Office Action does not explain which if any of the recitations of Claim 16 are taught by Vortman. Accordingly, it appears that Claim 16 is rejected on the same basis as Claims 4 and 23, namely as unpatentable over Thornton in view of Lin.

Claim 16 recites a phone adapter that comprises a phone interface connected to a phone via an analog phone line, a PSTN interface connected to a PSTN via an analog phone line, and an Internet interface connected to a broadband network interface device and, there-through, to the Internet. The phone adapter further comprises a controller that is configured to selectively route an analog phone call signal that is received through the phone interface from a phone through the PSTN interface and an analog phone line to a local access phone provider or to convert the analog phone call signal to a digital VoIP phone call signal and route the digital VoIP phone call signal through the Internet interface to the broadband network interface device and local access Internet provider for communication across a packet switched network based on a called number to which the phone call is directed.

Accordingly, Claim 16 includes similar recitations to Claim 4 and is submitted to be patentable over Thornton in view of Lin and Vortman for at least the reasons explained above for Claim 4.

Moreover, Claim 16 provides further bases for patentability over the cited references. In Claim 16, the controller receives the analog phone call signal through the phone interface from a phone, and selective routes that analog phone call signal through the PSTN interface via an analog phone call line to a local access phone provider, or converts the analog phone call signal into a digital VoIP phone call signal which it routes through the Internet interface to the broadband network interface device to the local access Internet provider. In sharp contrast, the controller 240 of Thornton, which is cited in the Final Office Action at Page 10 as disclosing the recitations of Claim 16, is within the gateway 200 (See FIG. 2 of Thornton). The controller 240 is therefore connected on the opposite side of the PBX 14 from the phone

16 and is within a local access phone provider. Consequently, Thornton does not disclose the recitations of Claim 16 of a controller that interfaces through the recited phone interface, the recited PSTN interface, and the recited Internet interface.

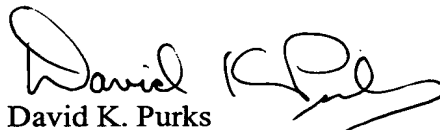
For at least these reasons, Claim 16 is submitted to be patentable over Thornton in view of Vortman and Lin.

The dependent Claims 14, 15, 17, and 18 are patentable per the patentability of independent Claim 16 from which they depend.

### CONCLUSION

In light of the above amendments and explanations, Applicants submit that the present application is in condition for allowance, which action is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.


Respectfully submitted,

  
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### CERTIFICATE OF MAILING

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Audra Wooten